

The invention in which an exclusive right is claimed is defined by the following:

1. A method for providing a consistent user interface with selectable user interface features, comprising the steps of:

(a) invoking one of a plurality of user interface modules, each for enabling a user interface feature, wherein each of the plurality of user interface modules can be selectively invoked by a user interface engine that receives instructions from a controlling program;

(b) causing the one of the plurality of user interface modules to perform a data function of the user interface feature, wherein the data function comprises a data manipulation that does not involve sensory interaction with a user; and

(c) causing a user interface plug-in module to perform a sensory function of the user interface feature, wherein the sensory function involves sensory interaction with a user, and wherein the sensory function is based both on the data function of the one of the plurality of the user interface modules and on a predefined set of sensory data, to provide consistent sensory interaction with the user, independent of any of the plurality of the user interface modules.

2. The method of Claim 1, wherein the user interface engine controls at least one of:

(a) communication between the user interface plug-in module and the plurality of user interface modules;

(b) computing resources allocated for the user interface modules and the user interface plug-in module; and

(c) communication interface conformance between the controlling program and the user interface engine.

3. The method of Claim 1, wherein the controlling program comprises one of a game, a simulation, an application program, and an operating system.

4. The method of Claim 1, wherein the plurality of user interface modules enable at least one of:

(a) a network communication feature for communicating data associated with a user interaction;

(b) a data entry feature for enabling a user to enter data to at least one of a game, a simulation, and an application program;

(c) a data display feature for enabling a user to view data that is obtained by and generated by one of the plurality of user interface modules; and

(d) an audio feature.

5. The method of Claim 1, wherein the sensory interaction comprises at least one of:

(a) providing a visual display to a user;

(b) providing an animation sequence to the user;

(c) providing an audio stimulation to the user; and

(d) detecting an input by the user.

6. The method of Claim 1, wherein the predefined set of sensory data comprises at least one of display layout data, image data, text, font data, and audio data.

7. The method of Claim 1, further comprising the step of causing the one of the plurality of user interface modules to specify a user interface object to the user interface plug-in module, the specified user interface object providing the sensor interaction with the user.

8. The method of Claim 1, further comprising the step of causing the user interface plug-in module to select data from the predefined set of sensory data, the selected data corresponding to a user interface object specified by the one of the plurality of user interface modules.

9. The method of Claim 1, further comprising the step of modifying the predefined set of sensory data during a runtime operation and repeating steps (a) through (c), thereby providing a different consistent user interface.

10. The method of Claim 1, further comprising at least one of the steps of:

(a) adding an additional user interface module for enabling an additional user interface feature and enabling the additional user interface module to cause the user interface plug-in module to perform a different sensory function; and

(b) replacing the user interface plug-in module with a different user interface plug-in module and causing the different user interface plug-in module to perform a different sensory function based on the data function of the one of the plurality of the user interface modules and based on a predefined set of sensory data.

11. A memory medium on which are stored machine instructions for carrying out the steps of Claim 1.

12. A system for providing a consistent user interface with selectable user interface features, comprising:

- (a) a processor;
- (b) at least one of a display in communication with the processor and a speaker in communication with the processor; and

- (c) a memory in communication with the processor, the memory storing data and machine instructions that cause the processor to carry out a plurality of functions, including:

- (i) invoking one of a plurality of user interface modules, each for enabling a user interface feature, wherein each of the plurality of user interface modules can be selectively invoked by a user interface engine that receives instructions from a controlling program;

- (ii) causing the one of the plurality of user interface modules to perform a data function of the user interface feature, wherein the data function comprises data manipulation that does not involve sensory interaction with a user; and

- (iii) causing a user interface plug-in module to perform a sensory function of the user interface feature, wherein the sensory function involves sensory interaction with a user, and wherein the sensory function is based on the data function of the one of the plurality of the user interface modules and based on a predefined set of sensory data to provide consistent sensory interaction with the user, independent of any one of the plurality of the user interface modules.

13. The system of Claim 12, wherein a portion of the machine instructions comprise the user interface engine that controls at least one of:

- (a) communication between the user interface plug-in module and the plurality of user interface modules;
- (b) computing resources allocated for the user interface modules and the user interface plug-in module; and
- (c) communication interface conformance between the controlling program and the user interface engine.

14. The system of Claim 12, wherein a portion of the machine instructions comprise the controlling program in the form of one of a game, a simulation, an application program, and an operating system.

15. The system of Claim 12, wherein a portion of the machine instructions comprise the plurality of user interface modules enable at least one of:

- (a) a network communication feature for communicating data associated with a user interaction;
- (b) a data entry feature for enabling a user to enter data to at least one of a game, a simulation, and an application program;
- (c) a data display feature for enabling a user to view data that is obtained by and generated by one of the plurality of user interface modules; and
- (d) an audio feature.

16. The system of Claim 12, wherein the machine instructions further cause the processor to perform the functions of:

- (a) providing a visual display to a user;
- (b) providing an animation sequence to the user;
- (c) providing an audio stimulation to the user; and
- (d) detecting an input by the user.

17. The system of Claim 12, wherein the predefined set of sensory data comprises at least one of display layout data, image data, text, font data, and audio data.

18. The system of Claim 12, wherein the machine instructions further cause the processor to perform the function of causing the one of the plurality of user interface modules to specify a user interface object to the user interface plug-in module, the specified user interface object providing the sensor interaction with the user.

19. The system of Claim 12, wherein the machine instructions further cause the processor to perform the function of modifying the predefined set of sensory data during a runtime operation and repeating the functions of (i) through (iii), thereby providing a different consistent user interface.

20. The system of Claim 12, wherein the machine instructions further cause the processor to perform the functions of:

(a) selecting an additional user interface module for enabling an additional user interface feature and enabling the additional user interface module to cause the user interface plug-in module to perform a different sensory function; and

(b) selecting a different user interface plug-in module and causing the different user interface plug-in module to perform a different sensory function based on the data function of the one of the plurality of the user interface modules and based on a predefined set of sensory data.